

**REMARKS**

Claims 1-16 are pending in the current application. Claims 1-6, and 8-15 stand rejected. Claim 7 has been objected to as depending upon a rejected base claim. Reconsideration and allowance of all of the pending claims is respectfully requested.

Claim 1 has been amended to incorporate the subject matter of claims 2, 6, and 7, and claims 2, 6, and 7 have been canceled. New Claim 16 incorporates the subject matter of claims 2 and 7 into claim 1. The remaining claim amendments are editorial, and correct claim dependencies. Accordingly, no new matter is being introduced into the application by way of this amendment. Entry of the amendment is respectfully requested.

**Claim rejections under 35 U.S.C. §112.**

At page 2 of the Office Action, Claims 2-7 and 9-12 are rejected under 35 U.S.C. §112, second paragraph, as indefinite. The Examiner asserts that it is not clear what the term "compatible" refers to. For the following reasons, this rejection is respectfully traversed.

The word "compatible" is a term that is well known in the art. Hawley's Condensed Chemical Dictionary defines solids as compatible when "they can exist in intimate contact for long periods with no adverse effect of one on the other." Hawley's Condensed Chemical Dictionary, 14<sup>th</sup> Edition, (2001). The word "compatible" is generally

used consistently with this definition in the present specification. See e.g., paragraphs [0076] and [0077]. In the present specification, a compatible group is a group which coexists with the reactive silicon containing group.

**Claim rejections under 35 U.S.C. §102.**

Claims 1-6, 8, 10, 13 and 15 are rejected under 35 U.S.C. §102(b) as anticipated by Pleuddemann (U.S. Patent No. 3,567,497). For the following reasons, this rejection is respectfully traversed.

The present invention is to an inorganic hybrid copolymer, that is produced using a macropolymerization initiator that includes a polycondensation segment. See e.g., claim 8. The macropolymerization initiator also contains groups that serve to initiate radical polymerization, such as an azo group, a peroxide group, or the like. The polycondensation segment of the macropolymerization initiator is incorporated into the resulting polymer.

Pleuddemann does not teach or suggest the inorganic hybrid copolymer of the present claim 1. As the Examiner acknowledges, none of the asserted references "teaches or fairly suggest a copolymer containing the specific E structure" as set forth in claim 7. PTO Office Action, dated March 14, 2005, page 14. Since

the subject matter of claim 7 has been incorporated into claim 1, claim 1 is not anticipated by Pleuddemann.

Similarly, Pleuddemann does not teach or suggest the methods of claims 9 and 10 to produce the copolymers of claim 1. Pleuddemann does not anywhere mention the use of a macropolymerization initiator that includes a polycondensation segment as recited in the present claims. Therefore, Pleuddemann cannot anticipate the methods of claims 9, 10, and 14. Accordingly, it is respectfully requested that this rejection now be withdrawn.

Claims 1-6, 8, 10, 13 and 15 are rejected under 35 U.S.C. §102(b) as anticipated by GB405 (GB 735 405). For the following reasons, this rejection is respectfully traversed.

GB 735 405 does not teach or suggest the inorganic hybrid copolymer of the present claim 1. As the Examiner has acknowledged, none of the asserted references "teaches or fairly suggest a copolymer containing the specific E structure" as set forth in claim 7. PTO Office Action, dated March 14, 2005, page 14. Since the subject matter of claim 7 is now incorporated into claim 1, claim 1 is not anticipated by GB 735 405.

Similarly, GB 735 405 does not teach or suggest the methods of claims 9 and 10 to produce the copolymers of claim 1. GB 735 405 does not anywhere mention the use of a macropolymerization initiator that includes a polycondensation segment as recited in the present claims. Therefore, GB 735 405 cannot anticipate the

methods of claims 9, 10, and 14. Accordingly, it is respectfully requested that this rejection now be withdrawn.

**Claim rejections under 35 U.S.C. §103.**

Claims 1-6, 8-9, and 11-15 are rejected under 35 U.S.C. §103(a) as unpatentable over Arakawa (U.S. patent No. 6,103,854) in view of Bigley (U.S. Patent No. 5,406,641) as evidenced by Odian (Principles of Polymerization, 2<sup>nd</sup> Ed., Wiley-Interscience, 1981, p. 226-242). Arakawa teaches an organic-inorganic hybrid polymer material which has a polycarbonate and/or a polyarylate mainframe. For the following reasons, this rejection is respectfully traversed.

As the Examiner has acknowledged, none of the asserted references "teaches or fairly suggest a copolymer containing the specific E structure" as set forth in claim 7. PTO Office Action, dated March 14, 2005, page 14. Since the subject matter of claim 7 is now incorporated into claim 1, the combination of Arakawa and Bigley do not teach or suggest all of the elements of the presently claimed invention.

However, "[T]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03. Therefore, the combination of Arakawa and Bigley cannot establish a case of prima facie obviousness of the presently claimed invention.

In addition, there is no motivation in the prior art to modify Arakawa and/or Bigley to arrive at the inorganic hybrid co-polymers of the present claims. As the Examiner also acknowledges, the copolymers of Arakawa are in a different field than those of the current application. PTO Office Action, dated March 14, 2005, page 13. There is no motivation in the prior art to modify Arakawa to arrive at the copolymers of the present claims.

Also, as the Examiner further mentions, the teachings of Bigley are merely used to show the use of a mercaptan transfer agent. PTO Office Action, dated March 14, 2005, page 12. In fact, the teachings of Bigley are otherwise completely irrelevant to the present invention. Therefore, Bigley does not teach or suggest the various structures for the "E" component recited in claim 1 either. Thus, there is nothing in the prior art which would motivate one of skill in the art to modify any of the asserted references to arrive at the copolymers of the present claims.

Likewise the teachings of Arakawa and Bigley do not teach or suggest the methods of claims 9, 10 and 14. There is no suggestion in either of these references of using the macropolymerization initiator with a polycondensation segment that is described in the present claims. Accordingly, it is respectfully asserted that this rejection should be withdrawn.

CONCLUSION


It is respectfully asserted that new claim 16, which incorporates the limitations of claim 7 into claim 1, is presently allowable in view of the Examiner's discussion in the March 14, 2005 Office Action, at page 14.

Therefore, in view of the present claim amendments, and the discussion give above, it is respectfully submitted that all of the pending claims are now allowable. An early reconsideration and Notice of Allowance are earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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